

Application Number 09/876,432
Response to Office Action mailed August 14, 2007

REMARKS

This Amendment is responsive to the Office Action dated August 14, 2007 and is submitted with a Request for Continued Examination. Applicant has amended claims 1, 3, 4, 18, and 76. Claims 1, 3-8, 10-13, 15-24, 39-41, 45-49, 75-78, and 80-102 are pending.

Allowable Subject Matter

In the Office Action, the Examiner objected to claims 17 and 24 as including subject matter that would be allowable if rewritten in independent form. Applicant thanks the Examiner for the indication of allowability.

Claim Rejection Under 35 U.S.C. § 103

Claims 1, 3-8, 10-12, 13, 15, 16, 18-23, 75-78, and 80-94

In the Office Action, the Examiner rejected claims 1, 3-8, 12, 13, 15, 16, 18-23, 75-78, 80-84, and 87-94 under 35 U.S.C. 103(a) as being unpatentable over Garber et al. (US 6,232,870) ("Garber") in view of Davidsson (US 6,934,718). In the Office Action, the Examiner also rejected claims 10, 11, 85 and 86 under 35 U.S.C. 103(a) as being unpatentable over Garber in view of Davidsson as applied to claims 8 and 83, and further in view of Beauchamp (US 6,886,011). Applicant respectfully traverses the rejections. Even when combined, the applied references fail to disclose or suggest all of the elements defined by Applicant's claims.

Claims 1, 8, 18, 75, 91

The present application relates to certain aspects of the collection and use of data obtained by interrogating RFID tags, each of which is associated with an item of interest, using an RFID reader.¹ That is, the present application describes various techniques in which an RFID reader is used to interrogate RFID tags to collect information related to the items, categorize the information, and store the collected information in a database.²

In contrast, Garber describes techniques for locating a known item, such as finding a particular item within a library.³ In rejecting claim 1, the Examiner reasons that Garber's techniques for locating items discloses inputting information to the RFID device describing a

¹ Applicant's disclosure at Summary.

² *Id.*

³ Col. 16, ll. 36-54

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certain item or class of items to be found, and scanning RFID tags to read identifiers, and then comparing the read identifiers to the items being located using known software routines.⁴ The Examiner argues that this determination of whether an item being located has been found, as taught by Garber, teaches many elements of Applicant's claims.

To be clear, the Examiner states that the item of interest being interrogated is not currently associated with the selected category, as required by previously pending claim 1, because this "association" is made "by the comparison" performed by the Garber reader when determining whether the interrogated tag is one being sought.⁵ Applicant respectfully submits that this interpretation of the present claims and the teachings of Garber is incorrect. In Garber, the "comparison" performed by the RFID reader compares the read identifier with the list of items being located. To the extent the list of items provided by user can be construed as a user-provided category, the specified tags are already part of the category. That is, the user is specifically designating the items as items to be located, and, accordingly, the items cannot be "not currently associated with the category," as required by Applicant's claim 1. The comparison performed by the Garber RFID reader simply validates whether a particular item being interrogated is on that list. Clearly, the information read from the tag in Garber (i.e., the identifier for the interrogated item) is already associated with the list of items being located; the user has already specified such information. Applicant's claim 1 is directed to a method for collecting and categorizing information from RFID tags, and the Garber's techniques for locating an RFID item or class of item does not teach or suggest Applicant's claimed techniques.

Nevertheless, to expedite prosecution, Applicant has amended claim 1 to clarify these differences. Amended claim 1 reads as follows:

*A method of collecting information related to RFID tags
associated with items of interest, comprising the steps of:
providing a database to store information collected from the RFID tags, wherein
the database specifies at least one category for the items of interest,
selecting one of the categories for the items from the database using a user
interface associated with an RFID reader;*

⁴ See Final Office Action dated August 14, 2007 at p. 4, citing Garber at col. 16, ll. 41-45.

⁵ *Id.*

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after selecting the category, using the RFID reader to interrogate at least one RFID tag associated with an item of interest to collect information associated with the item of interest, wherein the information collected from the tag is not currently associated with the category by the database; and

thereafter, updating the database with the RFID reader to store the information collected from the RFID tag and associate the stored information with the selected category.

As shown above, claim 1 now requires providing a database to store information collected from the RFID tags, wherein the database specifies at least one category for the items of interest. Applicant also draws the Examiner's attention to the requirement of selecting one of the categories for the items from the database using a user interface of the RFID readers. The combination of references fails to teach or suggest such a database or an RFID reader that allows a user to select a category as recited by claim 1.

Furthermore, claim 1 has been amended to clarify that the information collected from the RFID tag is not currently associated with the category in the database. Moreover, claim 1 requires updating the database with the RFID reader to store the information collected from the RFID tag and associate the stored information with the selected category. In this manner, the step of associating the information has been clarified in that it requires updating the database to store the information collected from the RFID tag and associate the stored information with the selected category. Thus, it can no longer be said that the "comparison" of the Garber reader performs these functions.

Davidsson does not overcome the deficiencies of Garber. Davidsson describes a web browser configured to categorize book-marked web pages. In contrast to the requirements of claims 1, 8, 18, 75, 91, Davidsson teaches that an individual web page is selected and obtained prior to the user selecting one or more categories for the web page. In particular, Davidsson states that "web page A is displayed in window 38, ready to be bookmarked."⁶ Neither Davidsson nor Garber, alone or in combination, teaches or suggests selecting one of the categories for the items from the database using a user interface associated with an RFID reader,

⁶ Davidsson, col. 5, ll. 38-39.

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and after selecting the category, using the RFID reader to interrogate at least one RFID tag associated with an item of interest to collect information associated with the item of interest, wherein the information collected from the tag is not currently associated with the category by the database. Quite the contrary, Davidsson clearly describes obtaining a web page prior to selecting a category for the web page, and Garber provides no selection operation whatsoever prior to interrogating RFID tags. Any modification of the item location techniques of Garber based on Davidsson would at best require a user to first scan an item and then select a category for the item as specifically taught by Davidsson.

Independent claim 8 requires selecting at least two categories of items using a user interface associated with an RFID reader, and after selecting at least two categories, using the RFID reader to interrogate at least one RFID tag associated with an item of interest to obtain information associated with the item of interest, wherein the item of interest is not currently associated with the categories selected in step (a). The Examiner appears to have overlooked this requirement as claim 8 has not been examined separately from claim 1 and the Examiner has made no comment on these requirements. Specifically, the Examiner has pointed to no evidence relating to how Garber discloses that multiple categories could be pre-selected by a user and then information obtained from RFID tags could be categorized according to the multiple categories.

Similarly, independent claim 18 requires selecting at least one category of items and specifying one or more attributes associated with the selected category using a user interface associated with an RFID reader. The claims also require using the RFID reader to categorize information for those items having the attributes specified for the selected category, and ignoring any RFID-tagged-item that may not be categorized in any of the categories without listing or categorizing those items that do not have the attributes specified for the selected category, wherein the RFID reader determines which of the RFID-tagged-items may be categorized and which RFID-tagged-items not be categories in any of the categories.

The Examiner states that Davidsson teaches that the user may bookmark a web page without selecting a category with which to categorize the web page. However, unlike the features recited by claim 18, in the Davidsson system, the user makes the decision not to categorize the web page. Applicant also submits that bookmarking a web page without an associated category does not teach or suggest ignoring any RFID-tagged-item that may not be

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categorized in any category. In particular, the Davidsson system does not “ignore” the uncategorized web page or determine which pages can be categorized or which cannot, because an affirmative action by the user is taken by bookmarking the web page, and data relating to the web page is stored in the process of bookmarking the web page. Consequently, Davidsson provides no teaching pertinent to using an RFID reader to categorize information, and using the RFID reader to ignore any RFID-tagged-item that may not be categorized in any of the categories, wherein in steps (c) and (d) the RFID reader determines which of the RFID-tagged-items may be categorized and which of the RFID-tagged-items may not be categorized in any of the categories, as recited by independent claim 18.

As another example, Applicant’s independent claim 75 recites selecting a category of items using a user interface, wherein a category is a group of items that possess specified attributes and represents a portion of an entire group of items having associated RFID tags.” In the Office Action, the Examiner stated, in regards to Davidsson’s discussion of categorizing web pages in terms of both sports and newspapers, that “the categories sports and newspaper are specified attributes and represents a portion of an entire group of items.”⁷ However, the web page categories of sports and newspapers are not groups of physical items that represent a portion of an entire group of physical items having associated RFID tags. Rather, in the context of Davidsson, these are general categories in which web pages may be categorized. Web pages are not physical items having associated RFID tags. In contrast, claim 75 requires selecting a category composed of a group of items that possess specified attributes. For example, “non-fiction books” may be a category of a group of items that possess specified attributes and represents a portion of an entire group of items (e.g., all books) having associated RFID tags.

Claim 76

Similarly, independent claim 76 requires selecting a category of items using a user interface associated with a computer, and designating one or more attributes of items in that category to define the category, obtaining a list of at least one RFID-tagged item, and automatically associating information related to the at least one item with the selected category using the designated attributes, wherein the information is obtained by interrogating the RFID tag associated with the at least one item. As explained above, Garber provides no teaching or

⁷ Final Office Action dated August 14, 2007 at p. 5.

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suggestion of associating information with a selected category, automatically or otherwise. In addition, Davidsson provides no teaching or suggestion of automatically categorizing web pages. Moreover, Garber and Davidsson both fail to teach or suggest automatically associating information related to the at least one item with the selected category using the designated attributes, wherein the information is obtained by interrogating the RFID tag associated with the at least one item, as further required by claim 76.

Claim 83

As a further example, independent claim 83 requires selecting at least two categories of items using a user interface, interrogating an RFID tag associated with at least one RFID-tagged item to obtain information related to the at least one item, and, as a primary operation, categorizing the information related to the at least one item(s) in at least one of the categories.

As stated above, Garber provides no teaching of selecting a category using a user interface. The Examiner also stated, “[s]ince Garber obtains the unique identifier of items by the RF reader, the information necessary to categorize each RFID-tagged item is the unique identifier, which is obtained from the RFID tag itself.”⁸ This contradicts the Examiner’s subsequent acknowledgement that Garber fails to teach that a category is selected and associated, and further illustrates the Examiner’s contrivance in relying on the Garber reference as teaching these elements of Applicant’s claims.

Claim 83 also requires, simultaneously with the primary operation of categorizing information in step (c), using the information obtained by the interrogation for performing a background inventory operation of determining the presence or absence of the items in the storage area and updating an inventory database to reflect the determined presence or absence of the items in the storage area. Neither Davidsson nor Garber, alone or in combination, teaches or suggests this feature. The Examiner acknowledges that Garber fails to teach or suggest updating an inventory database to reflect the determined presence or absence of the items in the storage area. Nonetheless, the Examiner asserts that one of ordinary skill would have found it obvious to modify the Garber system to include this feature, because Garber discloses that the user may input a new status of an article into a hand-held RFID device. The Examiner’s statements overlook the requirement of claim 83 of using the information obtained by the interrogation for

⁸ Final Office Action dated August 14, 2007 at p. 4 (emphasis added).

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performing the determining and updating as a background inventory operation. Garber's teaching of allowing a user to input a status of an item requires an independent, active step by the user, and fails to teach or suggest modification of the Garber system to simultaneously use the same information obtained by the interrogation for performing the recited background inventory operation. Thus, one of ordinary skill in the art would not have found such a modification of the Garber system obvious based on the cited teachings of Garber.

Of course, the claims dependent on independent claims 1, 8, 18, 75, 76, 83, and 91 incorporate all of the limitations of the respective base claims, and therefore are patentable for at least the reasons expressed above.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 1, 3-8, 10-12, 13, 15, 16, 18-23, 75-78, and 80-94 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

Claims 39-47

In the Office Action, the Examiner rejected claims 39-47 under 35 U.S.C. 103(a) as being unpatentable over Garber. Applicant respectfully traverses the rejection. The applied reference fails to disclose or suggest the inventions defined by Applicant's claims, and provides no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Claims 39-41

For example, independent claim 39 requires interrogating RFID tags, using the information obtained in the interrogation step for performing a primary operation of determining whether the items are in a predetermined order within a physical storage area, and simultaneously with the primary operation of determining whether the items are in a predetermined order within the storage area, using the information obtained by the interrogation in step (a) for performing a background inventory operation of determining the presence or absence of the items in the storage area and updating an inventory database to reflect the determined presence or absence of the items in the storage area. Independent claims 40 and 41 recite similar limitations, with the primary operation of claim 40 being searching for certain items on a predetermined search list, and the primary operation of claim 42 being checking items into or out of a physical storage area.

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In the Office Action, the Examiner acknowledged that Garber fails to disclose or suggest simultaneously with the primary operation of determining whether the items are in a predetermined order within the storage area in step (b), using the information obtained by the interrogation in step (a) for performing a background inventory operation of determining the presence or absence of the items in the storage area and updating an inventory database to reflect the determined presence or absence of the items in the storage area, as recited by independent claim 39.⁹ Nonetheless, the Examiner stated that Garber discloses that some books are grouped as a set of associated items, such as an encyclopedia, which are in alphabetical order. Garber describes that the RFID device could be used to determine whether all members of a set of associated items are present together. The Examiner asserted that it would be necessary to perform an order determination to determine which exact book or volume is missing from the set.¹⁰ The Examiner concluded that it would have been obvious to one of ordinary skill in the art to modify the teachings of Garber to simultaneously perform the two operations because one operation necessitates the determination of the other. Applicant respectfully disagrees.

Applicant finds no indication that the Garber system would require determining the order of items in a set in order to determine the identity of a missing item. The cited portion of Garber merely addresses notifying a user that items are out of order when the items are out of algorithm order, and provides no teaching for determining the identity of a missing item. Separately, Garber indicates that a given item may be missing if its unique identifier is not encountered during interrogation.¹¹ However, the order of other items in a set relative to the missing item is irrelevant to this determination.

Moreover, as described above with respect to claim 83, Garber provides no teaching or suggestion of using the information obtained by the interrogation for performing the determining and updating an inventory database as a background inventory operation. Garber's teaching of allowing a user to input a status of an item requires an independent, active step by the user, and fails to teach or suggest modification of the Garber system to simultaneously use the same information obtained by the interrogation for performing the recited background inventory

⁹ Final Office Action dated August 14, 2007 at p. 13.

¹⁰ *Id.*

¹¹ See Garber, col. 16, ll. 36-55.

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operation. Thus, one of ordinary skill in the art would not have found such a modification of the Garber system obvious based on the cited teachings of Garber.

Claim 45

With respect to claim 45, the Examiner cited col. 17, ll. 44–53 of Garber, which discusses programming the RFID device such that upon the RFID device reading several RFID tags that are indexed to the Adult fiction area, the user is alerted when non-Adult Fiction items are encountered. The Examiner stated that this teaches determining whether an item represented on the inventory list as being present is among the items whose RFID tags were interrogated, and when the item is not among the item whose RFID tags were interrogated, indicating to the user in real time that the inventory list incorrectly indicates that the item is present. Applicant disagrees with this conclusion. Garber does not teach indicating to the user in real time that the inventory list incorrectly indicates that the item is present when the item is not among the item whose RFID tags were interrogated. Rather, in the example cited by the Examiner, both the Adult fiction items and the non-Adult Fiction items are among those items whose RFID tags were interrogated. Garber provides no teaching pertinent to determining that an item, represented on the inventory list as being present, is not among the items whose RFID tags were interrogated, indicating the discrepancy, and enabling the user to correct the inventory list in real time. Thus, even if Garber were modified in the manner suggested by the Examiner, such modification would still not result in the features of Applicant's invention as claimed in independent claim 45.

Of course, the claims dependent on independent claims 39, 40, 41, and 45 incorporate all of the limitations of the respective base claims, and therefore are patentable for at least the reasons expressed above.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 39–41 and 45–47 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

Claims 48, 49, 95–102

In the Office Action, the Examiner rejected claims 48, 49, 95–98 and 101 under 35 U.S.C. 103(a) as being unpatentable over Garber in view of Frich (US 6,074,156). In the Office Action, the Examiner rejected claims 99 and 100 under 35 U.S.C. 103(a) as being unpatentable

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over Garber in view of Frich as applied to claim 97 above, and further in view of Barritz et al. (US 2002/0008621). In the Office Action, the Examiner rejected claims 102 under 35 U.S.C. 103(a) as being unpatentable over Garber in view of Frich as applied to claim 97 above, and further in view of Paruliski et al. (US 5,633,678). Applicant respectfully traverses the rejection. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

For example, independent claim 48 recites using an RFID reader to interrogate RFID tags, each associated with an item, wherein the items are not currently located at desired locations in a physical storage area, and the items are not currently arranged or interrogated in an order associated with their desired locations in the physical storage area. Claim 48 further recites the information obtained from the RFID tags is organized in an order in which the items are to be moved from their current location to the desired locations of the items in the physical storage area, and this organized information is provided to a user.

In the Office Action, the Examiner acknowledged that Garber fails to teach or suggest organizing, with the RFID reader, information obtained from the RFID tags in an order in which the items are to be moved from their current locations to their desired locations in the physical storage area. In view of this deficiency, the Examiner cited Frich, stating that Frich teaches that librarian's tasks involve receiving, sorting, and re-shelving returned materials, and that procedures have been developed to provide some degree of automation in these tasks.¹² The Examiner concluded that it would have been obvious to one of ordinary skill in the art in view of Frich to modify the teachings of Garber to provide the correct shelving order.

Applicant disagrees. Frich generally describes mechanically automating tasks of handling printed matter, such as by providing library carts, photocopy collators, and library cart loading systems.¹³ Frich fails to address organizing information, let alone organizing, with an RFID reader, information obtained from the RFID tags in an order in which the items are to be moved from their current locations to their desired locations in the physical storage area. The teachings of Frich relied on by the Examiner are therefore insufficient to render obvious the modification

¹² Final Office Action dated August 14, 2007 at p. 18.

¹³ Frich, col. 1-col. 2.

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of Garber proposed by the Examiner. The desirability of such a modification would have been apparent only upon access to Applicant's disclosure, which is impermissible.

Similarly, with respect to independent claim 95, Garber in view of Frich provides no teaching or suggestion of, with a portable RFID reader, obtaining a list of information related to RFID tags organized in the order in which the RFID tags were interrogated, and organizing the information in a different order with the portable RFID reader. The system of Garber need not reorganize information obtained from the tags at all when determining whether particular scanned items are in an algorithm order, and nothing in Garber or Frich suggests that any such reorganization is necessary. Further, as explained above, Frich lacks any teaching of organizing information, let alone with a portable RFID reader.

Of course, the claims dependent on independent claims 48 and 95 incorporate all of the limitations of the respective base claims, and therefore are patentable for at least the reasons expressed above.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 48, 49, and 95-102 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

Rejection for Obviousness-type Double Patenting:

The Examiner provisionally rejected claims 1, 3-8, 10-13, 15-24, 48, and 49 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 60 and 64-77 of copending Application No. 09/882,969.

Applicant notes the provisional status of these rejections. Accordingly, Applicant will address this issue if and when the rejection is formally applied.

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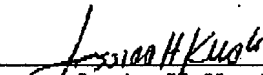
CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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